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(818) 354-4321

Sample Site Specific Safety Plan

Project:	JPL Bldg. XX Misc. Repairs Contract # XXXX
Date:	March XX, 2004
JPL Project Manager:	XXXXX XX-XXX (Office)
JPL Safety Professional:	XXXXX (818) 354-4433 (Office)
XXXX Project Manager:	XXX XXXX (XXX) XXX-XXXX (Cell)
XXXX Superintendent:	XXX XXXXX (XXX) XXX-XXXX (Cell)
XXXX Safety Officer:	XXX XXXX (XXX) XXX-XXXX (Cell)
JPL Emergency Services:	Dial 911 or 3-3333 from any JPL phone Dial (818) 393-3333 from Outside or Cell Phone
JPL Fire Department:	(818) 354-3311 For Hot Work Permits and Fire Sprinkler Coordination

The purpose of this document is to identify potential safety hazards and mitigation measures for the Bldg. XX ZZZ repair project. This binder is organized into sections delineating specific measures and also providing XXXX general safety plan and supporting documents for reference (see table of contents).

Project Description:
Building XX houses the Spacecraft Assembly Facility, which contains the dedicated High Bay #2 Clean Work Room, a move-in wipe-down vestibule (airlock), and various supporting rooms. This work is for the repair of water damage to the interior surfaces of High Bay #2 (also identified as Room 126 on existing JPL Record Drawings) and adjacent auxiliary areas, including the basement and ceiling plenum. Existing

interior damaged surfaces need to be cleaned, dried, properly prepared and repaired and new final finishes applied. This work is specifically to repair all of damaged surfaces, achieve renewed conditions that will support clean assembly functions for a prolonged period of time (15 to 20 years), and install a metal plenum to enhance the radio frequency shielding provisions in the plenum. All work will be performed in a manner conducive to clean room protocol.

The following tables outline potential hazards and controls that may be used to mitigate the hazards. Review the tables and include only those hazards and controls that apply to the specific job. The controls are by no means exhaustive and subcontractors may include additional controls as applicable. In addition to the table format, a narrative description may be used where appropriate.

Task: Underground duct bank and conduit installation, including excavation, encasement, and backfill

HAZARDS	CONTROLS
Contact with active utility lines	• Review all area underground utility drawings and have the area of excavation surveyed with a ground penetrating radar and Electro-magnetic RF instrument prior to the commencement of digging. • Obtain an excavation permit from JPL prior to the commencement of any digging activities. • Use hand excavation techniques around all known utilities.
Possible pedestrian or vehicular traffic in work area. and falls into open trenches.	• Provide barricades or fencing around site as necessary to protect personnel and equipment. • Provide pedestrian walkway over trenches where emergency egress from building is required. • Provide traffic rated steel plates at traffic crossings and ensure plates are secure from displacement.
Collapse of trenches	• Soil will be inspected by a competent person in trenching, excavations, and protective systems. • Protective systems will be used for any trench or excavation 5 feet or deeper or made in unstable soil.
Excavation equipment striking worker	• Workers will make every attempt to stay clear of moving equipment. • Workers will wear high visibility clothing when working in close proximity to moving equipment.
Materials falling into trench	• Keep all spoils and materials at least 2 feet away from the edge of trench

Task: Roof Replacement

HAZARDS	CONTROLS

Falls from rooftop	• All employees have been training in the use, limitations and inspections of personal fall arrest equipment, fall restraint techniques, and the use of warning line systems. • Warning line systems will be used to keep workers at least 25 feet from the leading edge of the roof.

Task: Asbestos Related Work

- A detailed asbestos related work plan will be submitted as part of the overall Health and Safety Plan.

Task: Lead Related Work

- A detailed Lead related work plan will be submitted as part of the overall Health and Safety Plan.

Task: Lifting AHU

HAZARDS	CONTROLS
Possible pedestrian or vehicle traffic in work area.	• Secure work area as appropriate to keep unauthorized personnel out of the lifting zone. • Position crane and delivery truck in such a manner to limit exposure to people and property.
Crane or rigging failure.	• Submit JPL lift plan with crane ratings, load charts, rigging diagrams, crane certifications, and operator certification. • Review all crane and rigging safety requirements prior to lift. • Verify weight of items to be lifted and distance from center pin of crane. • Daily inspections of the crane will be performed and documented.
Workers struck by load.	• Only workers trained and authorized to perform rigging and signal activities will be involved in the lift. • Single person wear a high visibility vest and remain in visual. or radio contact with crane operator at all times.

Task: Electrical Cutovers and Work on Electrical Equipment

HAZARDS	CONTROLS
Contact with energized parts.	• All workers working on energized equipment will Arc-Flash protective clothing I accordance with NFPA 70E. The PPE will consist of flame retardant clothing or flash suits, eye, face, hand, head, and foot

	protection as necessary. A flash boundary will be established and only trained and authorized individuals will be allowed in the flash boundary. • Keep all covers and barriers guarding live parts in place except when required to be removed for testing. • Place grounding jumpers adequate to clear fault currents on equipment where practical.
Inadvertent start-up of electrical equipment.	• Review Lockout/Tagout procedures with workers and JPL prior to starting work. • De-energize electrical equipment and apply locks and tags per the Lockout/Tagout procedure. • All employees are instructed to verify lockouts are in place and equipment is de-energized prior to beginning any work.

Task: Concrete and Masonry Work

HAZARDS	CONTROLS
Tripping on scraps and debris	• Properly store all materials in work area. • Perform clean-up and housekeeping duties a minimum of once per day to remove all scraps and debris for the work area. • Remove all nails from form work immediately after stripping forms.
Worker impalement on rebar.	• Steel plated rebar caps will be placed on all vertical and horizontal rebar.
Chemical exposure to form oils, curing compounds, concrete, and grout.	• Review MSDS's for all chemicals being used and use appropriate PPE as necessary.
Pedestrian or vehicular traffic in work area.	• Provide spotters and signal persons where necessary to control traffic and back-up concrete trucks during pours.

Task: Demolition

HAZARDS	CONTROLS
Hazardous materials and substances.	• Asbestos and lead reports will be reviewed and all hazardous material will be identified prior to the start of any demolition work. • Asbestos and lead work plans will be submitted

	detailing work procedures, controls, and PPE for all asbestos and lead work.
Contact with energized utilities.	• Review demo plan with JPL and verify all utilities have been de-energized prior to any demolition work. • Follow LOTO procedures as described in the LOTO program included as Attachment.
Eye injury from projectiles.	• All workers performing demolition activities will wear eye and face protection as required.
Cuts, scraps, and punctures	• All workers will wear hand protection and appropriate clothing during demolition activities.
Inhalation of dust.	• All workers will wear respirator or dust mask as necessary during demolition.

Jobsite Access:
Personnel access to the high bay will be via the east man door leading to the air lock. Materials will be brought in via the east roll up door. These doors are not to be left open. Signs will placed at each entrance to the jobsite stating:

"Authorized Personnel Only."

Unauthorized personnel will be asked to leave the area immediately.

Safety Signage:
The following signs are to be posted at all access points to the project.
"Authorized Personnel Only"
"Powder Actuated Tools in Use"
"Laser Light in Use"
"Hard Hats Required"
"Safety Glasses Required"
"Fall Protection Required"
"Emergency Contact Numbers"

Noise Mitigation:
Noise sources for this project are limited to small diameter concrete drilling above the dance floor. Occupied areas of bldg. XX should not be affected by this noise from this project.

Dumpster and Lay Down Area:
One (40) yard dumpster will be located on the south side of bldg. XX, north of Forestry Camp Road. Provide orange delineators as necessary. This area will be maintained daily.

Personal Protective Gear Required:
Hard Hats
Safety Glasses
Ear Plugs (as needed)

Work Shoes
Long Pants
Shirt with company logo (no tank tops)
Lanyard and Harness

Fall Protection:
Describe the type of fall protection your company will utilize, discuss the training each employee has had in fall protection. If you are using a CAZ monitoring system, be detailed.

Scaffold Plan:
See section 15 of this binder for the scaffold plan, specification, and related engineering.

Powder Actuated Tools:
Only persons with current certification may operate powder-actuated tools. XXXX will check with each Subcontractor for these certifications.

Asbestos:
See Attachment # X "Asbestos work plan"

Lead:
See Attachment # X "Lead work plan.

Fire Protection:
XXXX will provide (2) portable ABC fire extinguishers on the dance floor. There are existing fire extinguishers on the main floor and basement areas.

Hazardous Energy:
Please see section #3 in this binder for lockout-tagout procedures for this project.

Hot Work Permits:
There will be welding required above the dance floor area. Welding blankets will be used to arrest any sparks. Optional Attachments not requiring welding may be suggested to eliminate the risk of fire. XXXX will contact the JPL Fire Department for any necessary permits.

First Aid:
Name of First Aid/CRP trained personnel:

_____
_____

Location of (2) First Aid Stations:
(1) Just inside high bay on main floor and (1) above the dance floor.
(1) Large first aid kit
(1) Blanket
(1) Litter with straps
(1) Portable eye wash station

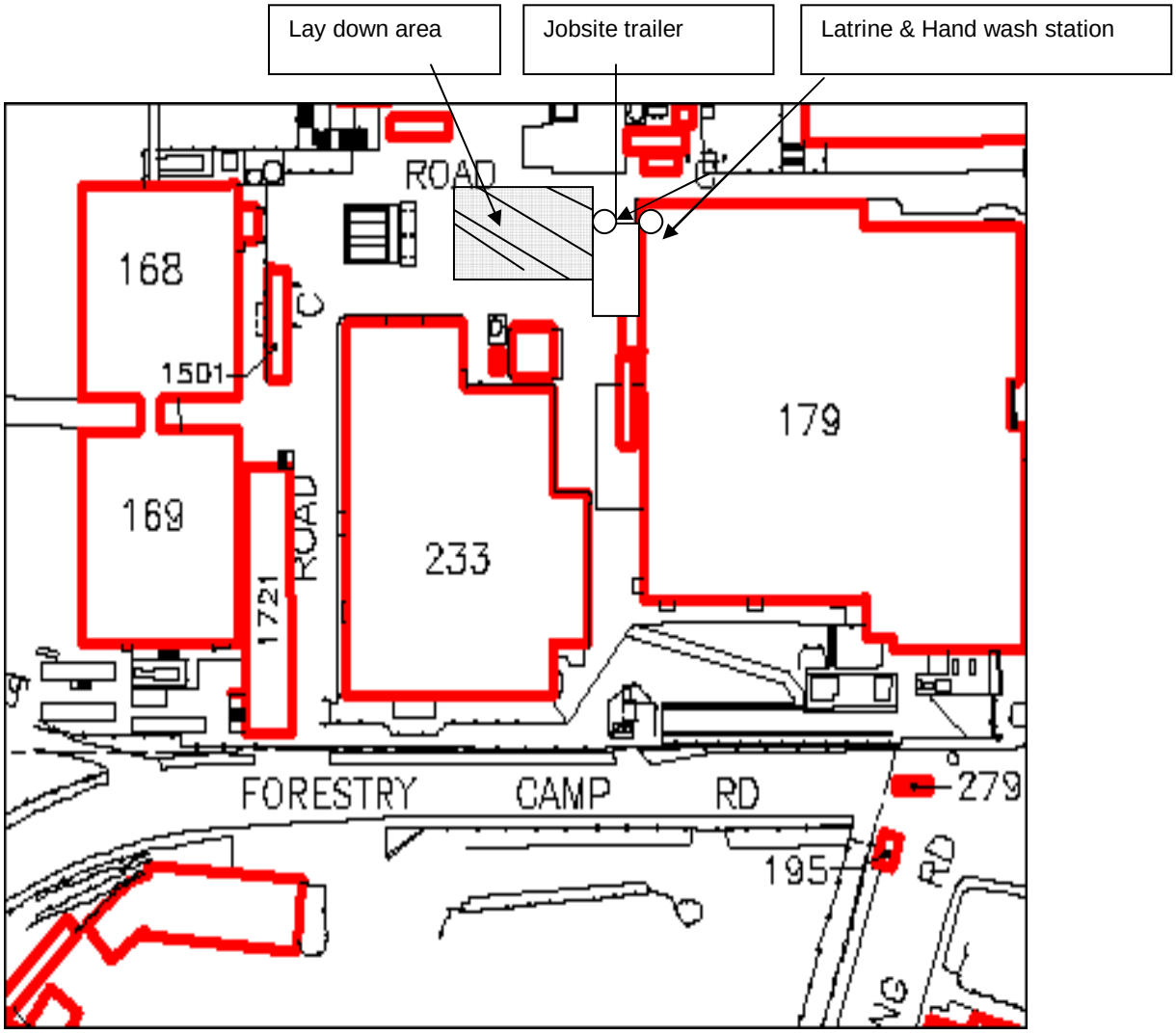
(1) Bloodborne Pathogen First Response Kit
(1) Drinking water with disposable cups

Emergency Action Plan
XXXX will provide (1) litter with straps on the dance floor. There will be a 2000lb rated winch to lower the litter to the main floor. XXXX and its Subcontractors will not conduct any rescue operations. XXXX will contact the JPL fire department for evacuation by litter. Two other means of exit for litter evacuation are the stair tower and the bridge crane access door.

Hazardous chemicals:
XXXX will conduct daily monitoring of (3) areas for oxygen levels. The dance floor, main floor, and basement areas are to be checked before and during each shift. Daily logs are to be kept by the XXXX superintendent. Workers will not be allowed to enter areas where oxygen levels are above 22.5% or below 19.5%. Depending on MSDS requirements for the plaster and paint operations, workers may be required to wear respirators. Any worker required to where a respirator shall show proof of a current fit test and base respiratory profile. MSDS sheets will be provided with the materials submittals.

Documentation and Training:
XXXX and each Subcontractor will conduct toolbox safety meetings once a week with each meeting to be documented with a sign-in sheet and description of the topic covered. XXXX requires that each Subcontractor and its' crew attend a job start safety orientation for each major project. The job superintendent provides the orientation and points out dangers for the specific job. Each employee is asked to sign a document of understanding that he/she has been made aware of the hazards and mitigating measures. XXXX distributes a hard-hat sticker to each person to show that they have been given the orientation. This procedure allows the XXXX safety officer to quickly audit the level of compliance. The items listed above include but are not limited to all of the safety measures to be employed on the JPL Bldg. XX High Bay Project. XXXX accepts all comments from its' clients, management, Subcontractors, crew, suppliers and other interested parties in an effort to provide a safe a productive workplace.

Site Layout and Diagram



Subcontractor Approvals:

	Print Name	Signature	Date
Project Manager:			
Site Supervisor:			
Safety Representative:			

Jet Propulsion Laboratory Approvals:

	Print Name	Signature	Date
Project Manager:			
OSPO Representative:			